

Application No. 10/705,570
Amendment dated October 24, 2006
Reply to Office Action of September 12, 2006

Docket No.: MN-24,954-122CIP

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of mechanically removing soil from a surface intended to be cleaned, said method being performed by a surface maintenance machine and comprising ~~the steps of repeatedly:~~

wetting a portion of a revolving cleaning medium with a cleaning liquid;

then extracting some soil and some of the cleaning liquid from the previously wetted portion of the cleaning medium; and

then wiping the surface intended to be cleaned with the portion of the revolving cleaning medium so as to transfer soil from the surface intended to be cleaned to the cleaning medium; and

repeating said wetting, extracting and wiping during a cleaning procedure.

2. (Currently amended) The method of claim 1 further comprising the step of extracting soil and cleaning liquid on the portion of the cleaning medium ~~previous~~ previously wiped against the surface intended to be clean and prior to again wetting the same portion.

3. (Currently amended) An automated method of removing soil from a surface intended to be cleaned by a movable machine having a revolving cleaning medium comprising ~~the steps of repeatedly:~~

wetting a portion of the revolving cleaning medium with a cleaning liquid;

then extracting some soil and some of the cleaning solution from said previously wetted portion of the revolving cleaning medium; and

then wiping the surface with said portion of the revolving cleaning medium previously extracted so as to transfer soil from the surface intended to be cleaned to the revolving cleaning medium; and

repeating said wetting, extracting and wiping during a cleaning procedure.

4. (Original) The method of claim 3 further comprising the step of extracting soil and cleaning solution from the portion of the cleaning medium previously wiped against the surface intended to be clean prior to again wetting the same portion.

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5. (Currently amended) A method of removing soil from a surface intended to be cleaned using a movable machine, said method comprising the steps of:

moving the movable machine across the surface while ~~repeatedly performing the steps of:~~
wetting a portion of a revolving cleaning medium with a cleaning liquid;
extracting soil and cleaning liquid from said portion of the revolving cleaning medium; and then
wiping the surface with said portion of the revolving cleaning medium so as to transfer soil
from the surface intended to be cleaned to the cleaning medium.

6. (Original) The method of claim 5 wherein the step of wetting the portion of the revolving cleaning medium includes spraying cleaning liquid onto the cleaning medium.

7. (Original) The method of claim 5 wherein the step of extracting soil and cleaning liquid from the portion of the cleaning medium is achieved through a vacuum extractor.

8. (Original) The method of claim 5 wherein the cleaning medium includes at least one elongated generally cylindrical shaped element rotating generally about an axis of rotation.

9. (Original) The method of claim 8 wherein the cleaning medium includes a pair of elongated generally cylindrical shaped elements which are counter-rotated relative to each other, and wherein said axis of rotation is generally parallel with the surface intended to be cleaned.

10. (Original) The method of claim 9 wherein the step of extracting is achieved through a pair of vacuum apertures, each of said pair of vacuum apertures being associated with a different one of the counter-rotated elongated generally cylindrical shaped elements.

11. (Original) The method of claim 8 wherein the axis of rotation is aligned in a direction generally transverse to an operational direction of device movement across the surface.

12. (Original) The method of claim 5 wherein the surface is a carpet surface, and wherein the step of wiping the surface transfers soil from fibers of the carpet surface to the cleaning medium.

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13. (Original) The method of claim 5 wherein the surface is a fabric surface, and wherein the step of wiping the surface transfers soil from fibers of the fabric surface to the cleaning medium.
14. (Original) The method of claim 5 wherein the movable machine includes at least one drip guard in contact with at least a portion of the cleaning medium for redirecting cleaning solution within a cleaning head toward the cleaning medium.
15. (Currently amended) A method of cleaning a carpeted surface, said method being performed by a surface maintenance machine and comprising ~~the steps of repeatedly:~~
spraying a portion of a revolving cleaning medium with a cleaning liquid;
then removing some soil and some of the cleaning liquid from the previously wetted portion of the cleaning medium using a vacuum device; and
then wiping the carpeted surface with the portion of the revolving cleaning medium so as to transfer soil from the carpeted surface to the cleaning medium; and
then repeating said spraying, removing, and wiping the carpeted surface during a carpet cleaning procedure.
16. (Original) The method of claim 15 wherein the step of spraying involves pumping a cleaning liquid from a reservoir carried by the surface maintenance machine.
17. (Original) The method of claim 15 wherein the step of removing involves applying a vacuum to the previously wetted portion of the cleaning medium so as to convey soil and cleaning liquid to a receptacle of soiled solution carried by the surface maintenance machine.
18. (Original) The method of claim 15 wherein the step of wiping involves rotating a cylindrical cleaning medium in contact with the carpeted surface.
19. (Original) The method of claim 18 wherein the cylindrical cleaning medium is rotated about an axis which is generally perpendicular to a direction of machine use.

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20. (Original) The method of claim 15 wherein the surface maintenance machine either a self-propelled machine or a non-propelled machine.

21. (Original) The method of claim 15 wherein the movable machine includes at least one drip guard in contact with at least a portion of the cleaning medium for redirecting cleaning solution within a cleaning head toward the cleaning medium.

22. (Currently amended) A method of cleaning a carpeted surface, said method being performed by a surface maintenance machine and comprising the steps of repeatedly:

spraying a portion of a revolving cleaning medium with a cleaning liquid;

then removing some soil and some of the cleaning liquid from the previously wetted portion of the cleaning medium using a vacuum device;

then wiping the carpeted surface with the portion of the revolving cleaning medium so as to transfer soil from the carpeted surface to the cleaning medium, said step of wiping causing an amount of cleaning liquid to be thrown from the cleaning medium into contact with interior surfaces of a cleaning head; and

then redirecting the amount of cleaning liquid thrown from the cleaning medium back toward the cleaning medium so as to minimize the dropping of large droplets of cleaning solution onto the carpeted surface.